1:Ingrams G-5 (1934-35)1936 MM2 Hadhramaut MM2

000 product of the " honeydew " type,[1] which would account for its unusual taste and odour.

Commercial Value.—The honey was submitted to two firms of merchants in London who reported respectively as follows :—

(1) " We thank you for your letter and sample of honey, which we have examined. Although the body is quite good, we think you will agree that it leaves much to be desired with regard to flavour.

" At the moment England is so well served with honey of agreeable flavour that it seems doubtful if this honey could be imported to any material benefit. We can buy Jamaica honey, which is good both in colour and flavour, at 26s. per cwt. landed London, so you will appreciate that the value of the present honey would have to be decidedly below this figure. We think you will be well advised to inform your friend that there is little likelihood of an opening on the London market."

(2) " This honey appears to be of a good flavour, but at the present moment there is such a large stock of honey available of all kinds that it would be difficult to find a market for a fresh quality from a new origin."

The latter firm mentioned that Colonial honey was currently selling on the London market at prices ranging from 25s. to 40s. per cwt., according to quality. It will be observed that there is a difference of opinion with regard to the flavour of the honey, but it may be pointed out that the taste is undoubtedly such as would not appeal to the ordinary consumer in this country.

439 263 *Remarks.*—From the trade reports quoted above it will be seen that the possibility of disposing of this honey in the United Kingdom is very doubtful, in view of the large supplies of ordinary honey of good quality available on the market. Furthermore, it is probable that such dextro-rotatory honey would be regarded with suspicion, whilst its unattractive flavour and odour would be further obstacles to its sale.

Livestock.

556 231 The wealth of the Beduins lies principally in their livestock, consisting of camels, donkeys, cattle, sheep, goats and poultry. Camels and donkeys are reared for transport purposes. The selling of animals is a regular feature of the fairs which are held all over the country at the many shrines of saints. The Qu'aiti Government estimates the number of camels in the country at 20,000.

231 232 Sheep and goats are raised for milk and meat. Cattle, though not plentiful, are not uncommon. An outbreak of rinderpest had killed 60 head of cattle at Hajarein at the time of our visit, and this was considered a very heavy loss. Heald states a decoction of

[1] This is not ordinary honey originating in floral nectar, but is produced by the bee from secretions of leaves and sometimes from secretions deposited by insects.

1: Ingrams G-5 (1934-35)1936 MM2 Hadhramaut MM2

boiled radishes is given to cattle with " cattle plague ". Donkeys are said to be susceptible to a very fatal disease.

Both cattle and camels are used in ploughing, the former usually in pairs and the latter singly. For the working of the wells, camels, cattle, donkeys, men and women, all combine, frequently in mixed teams, the animals being generally given a bunch of fodder at the top of the incline each time they reach it. Camels are also employed in turning the machines for extracting the simsim oil. The fact that fodder and water become more scarce north of the main Wadi necessitates a greater use of camels and donkeys are few and far between. Donkeys are uncommon also in the Wadi Maseila, for there is a three-day stretch without water in the middle of the Wadi, and below Buzun the flow is not perennial. Sheep and goats, however, are to be found everywhere, seeking their pasture under the care of women or girls.

Heald in his report states that no attention is paid to selection during the breeding season—which is usually in the early summer. With the sheep, one lamb is generally the average—although higher up in the Hadhramaut, amongst better pasture, ewes give two lambs. The sheep in the Meifa valley had black fleeces with the curly fat tails, although smaller than the Egyptian sheep. The goats are also smaller than in Egypt and originally came from the Yemen.

It was particularly noticeable in the Wadi Maseila that the live-stock were very much smaller than those elsewhere. The cows are little larger than a normal-sized calf, and the sheep and goats are also smaller than those in Du'an or to the north. The cattle are similar in size to those of Soqotra. The breeds of goats and sheep appeared to vary considerably over the whole country, but a black-and-white variety was the most common. His Highness the Qu'aiti Sultan has a few horses, both for riding and carriage work, and I saw one at Meshhed. There are probably not a dozen in the whole country.

Minor agricultural products.

Dates in the Hadhramaut are merely a hobby, and the entire local crop is consumed fresh during a season of two months, June and July. It may be recorded that a single date-tree in the Du'an valley sells from 400 to 1,000 dollars, many times its economic price. Dates form a staple article of diet and are therefore imported in large quantities.

The principal grain and other food crops are millet—*dirra* (great millet, *Sorghum vulgar*), *dukhn* (bullrush millet, *Pennisetum typhoideum*) and *keneb* or *msebeli* (Italian millet, *Setana italica*); lucerne; *jil jil* (sesame, not eaten by donkeys); *dijar* (a kind of bean); wheat (not eaten by donkeys or goats); and a little maize. The stalks are generically known as *qusab*, and the grain as *ta'm*. Hashish or grass is also grown for animals. The principal garden crops are sweet potatoes, onions, garlic, pumpkins, carrots, egg

there was also no large supply of fodder[1]; we could only buy thirty bundles of dried *dhura* stalks, which cost us one *riyāl*. The *riyāl* seemed to be the only coin in use; for a half *riyāl* one could buy nothing. Our help was asked for a sick camel which, we were told, had been bitten by a snake. The local camel doctor had smeared the animal with a black salve and had cut off half of its ears. A sick man, who was obviously suffering from elephantiasis, told us that he had been hissed at by a snake. With regret we had to explain that we travelled without our medicine-chest and were unprovided with means for helping against the dangerous snakes of the country.

3. ʿRĒDET ED-DEYYIN.

We went on our way very soon, in the hope of reaching er-Rēda, the central point of the settlements of the Deyyin Bedouins, that evening. There lives the chief whose acquaintance we had made at Bā Ṣurra's castle. It was long after sundown when we approached Shēkh ʿUthmān's village, Nejēdēn. We stumbled on through the darkness, following the camels, till we came to cultivated land with a few dried-up *nibq* trees dotted about here and there. The village showed no sign of a friendly, inviting light; the fortress-like houses resembled nothing but black cubes. Directly the watch-dogs heard us they proceeded to attack us, barking furiously, and this noise roused life in the houses: first there were questioning voices and then a few lights. We kept the dogs at bay with stones and, aided by information proceeding from the closed houses, found our way to Shēkh ʿUthmān's dwelling, which was a miserable-looking, low building with nothing attractive about it. We awakened the inhabitants by our shouts and, with distrustful aversion, they admitted us to a large room with an earthen floor where we sat down on our travelling rugs. Our hopes of a speedy sleep after this very tiring day

[1] [at a time of drought --Analyst]

6:Gt. Brit., Colonial Office G-3 (1948) 1950 MM1 Aden
Hadhramaut MM2

312 the north-east Yemen Plateau, but local rain was sufficient and caused damage to the wheat and barley crops when at the harvest stage.

312 In the districts west of the Bana *kharif* conditions in Lahej and Subeihi
731 country were good, but in the highland districts rainfall was insufficient
241 for crop production over most of the year. In Abyan which is watered by the Bana and the Hassan rivers where they enter the coastal plain, a weak flood season was experienced, but this resulted in effective flood control, and on the balance, in satisfactory crops. East of the Bana and the Abyan district, conditions in the *kharif* were bad. Lack of rain in most districts reduced crop production based on a rain and flood irrigation system to nothing. Fodder supplies needed for sustaining the animals working the water lifts in permanently irrigated areas were reduced, and lowered production from what should normally be a reliable source.

231 Livestock suffered and were reduced in numbers as a result of poor
248 flood conditions caused by insufficient rain. A secondary factor which seriously affected camel owners and transporters in the Eastern Protectorate was a dearth of the sardines which are usually caught in great quantities on the Hadhramaut coast and used in a dry state as fodder for livestock.

241 *Crop Production*

	Acres	*Tons*
Western Aden Protectorate		
Millet—sorghum	40,000	8,000
Bulrush millet and other small millets	7,500	1,125
Wheat	1,500	750
Barley	4,500	3,000
Sesame	5,500	550
Eastern Aden Protectorate		
Millet—sorghum	5,000	1,700
Bulrush millet and other small millets	1,000	200
Wheat and barley	3,500	2,500
Date palms	10,000	4,500

Pests and Diseases

No report of locust activity was received during the year.

Rust is probably the most important plant disease in the Aden Protectorate. In 1948, little damage was recorded from this disease.

Animal Health

232 No rinderpest was recorded during the year. Goat virus was im-
231 ported from Kenya and used for the immunisation of cattle in Abyan. Horse-sickness vaccine was used in Beihan, Abyan and Lahej.

	Western Aden Protectorate	*Eastern Aden Protectorate*
Camels	30,000	45,000
Cattle	50,000	8,000
Goats	400,000	320,000
Sheep	110,000	50,000

8:Gt. Brit., Colonial Office G-3 (1951-52)1954 MM1 Aden
Hadhramaut MM2

ANIMAL HUSBANDRY

231

Estimate of Livestock in 1952

	Western Protectorate	*Eastern Protectorate*
Camels	35,000	45,000
Cattle	60,000	8,000
Goats	500,000	355,000
Sheep	150,000	50,000
Donkeys	3,500	3,500

Most of the animals are kept by peasant farmers who depend on animal products for an important part of their diet. Away from the less settled areas pastoral, nomadic and semi-nomadic tribes own large numbers of livestock and depend on stock products for food and for sale and barter to obtain other requirements.

Towards the end of 1952 drought conditions affected the production and general condition of livestock. No serious animal disease was recorded during the year.

647
There is no separate Veterinary Department in the Protectorate but 232
the Director of Agriculture undertakes preventive measures to control important diseases such as rinderpest and horse-sickness.

A herd of Ongole (Nellore) cattle is maintained by the Abyan Board. It is proposed to test the productivity of this breed and the suitability of animals raised locally from the breed for draught purposes in Abyan.

FORESTRY

137
No true forest exists in the Protectorate. Trees and shrubs common to arid regions in this latitude are found, while a dense growth of Tamarisk and Salvadora is found as "corridor forest" on the sides of the larger flood courses. Acacia is the most important species at all altitudes ; a semi-cultivated species of great value for timber and for honey-gathering bees is the Elb (*Ziziphus spina christi*).

185
A general dearth of forest products for timber, building materials and for browse for livestock is apparent. In many parts of the Protectorate, and particularly in areas close to Aden, the coastal towns of the Eastern Protectorate, and the Hadhramaut towns, destruction of vegetation for charcoal production and for fuel has devastated large areas. So far no satisfactory measures have been taken to regenerate such areas. Large amounts of capital and firm action by local Governments are needed for this.

CO-OPERATION

476
The Beihan Farmers' Association, now in its fifth year, continued to benefit the Beihan district. This Association provides its members with seed stocks and grain supplies on credit. At the end of the year the assets were estimated at £14,850 and liabilities at £8,779.

The Audhali-Kaur Farmers' Association has made moderate progress since its formation in 1950. It is primarily concerned with the organisation of vegetable production, transport and marketing for its members who farm with the aid of lift irrigation in the mid-altitude area of the "Audhali-Kaur".

bis snails have been described from some of the affected foci.

ANCYLOSTOMIASIS. Hookworm infection occurs in Lahej and a few agricultural centers in Western Aden Protectorate. *Necator americanus* has been identified in the cases treated at the Civil Hospital in Aden.[20]

OTHER HELMINTH INFECTIONS. Infections with one or more types of intestinal worms are prevalent, particularly among the peoples of the Protectorate. Ascariasis is widespread. Trichuriasis and, to a lesser extent, enterobiasis are common. Hydatid disease is reported among individuals from the Colony and from the interior. Infection with the beef tapeworm, *Taenia saginata*, is enzootic among the cattle in the tribal districts, and human infections are undoubtedly frequent. Cases are occasionally encountered among immigrant families in the Colony. The pork tapeworm, *T. solium*, is rare, but infections are sometimes seen in the Aden hospitals.

Other Infections. *Brucella melitensis* is enzootic among the goats in this area, and Malta fever is diagnosed from time to time in the Colony hospitals and dispensaries.

DISEASES SPREAD CHIEFLY THROUGH THE RESPIRATORY TRACT

Tuberculosis. Tuberculosis is one of the most prominent diseases affecting the inhabitants of southern Arabia, but no precise information is available, except for Aden Colony. The high degree of undernutrition and overcrowding, and the low standards of personal hygiene and sanitation prevailing among large sections of the population, favor the spread of the infection. The disease is probably prevalent among the women who are confined to close quarters by the *purdah* system and among the young children in close contact with them. In a small tuberculin test survey covering 95 Aden township schoolboys of 7 to 12 years of age, in 1945,[2] positive reactions were obtained in 56 per cent—a rate which ranks high among those usually found in